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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,480	03/30/2001	David W. Cannell	05725.0777-00	5496

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EXAMINER
CHANNAVAJJALA, LAKSHMI SARADA

ART UNIT	PAPER NUMBER
1615	

DATE MAILED: 08/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/821,480	CANNELL ET AL.	
	Examin r	Art Unit	
	Lakshmi S Channavajjala	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 May 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-155* is/are pending in the application.

4a) Of the above claim(s) *1-120 and 152-155* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *121-151* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4*.
4) ☒ Interview Summary (PTO-413) Paper No(s). *7*.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Receipt of response to election requirement, dated 5-24-02 I acknowledged.

Election/Restrictions

1. Applicant's election with traverse of Group IV in Paper No. 6 is acknowledged. The traversal is on the ground(s) that the examiner has not shown that examining the above groups together would constitute a serious burden. Further, applicants argue that all the groups are classified in the same class and therefore a search for these groups should be overlapping. This is not found persuasive because a search and examination of one group would not necessarily encompass a search for all the groups. As clearly explained in the previous office action, the composition of the elected Group (IV) only requires C3 to C5 monosaccharides and not film-forming polymers, whereas the composition of group I requires monosaccharides and film-forming polymers. Further, a search for the claims of Group IV includes any composition (hair, skin etc.,) and does not necessarily require a search of the method of non-permanent shaping of hair as claimed in groups II and III. Thus, the focus of search required for each of the groups is different, even though the different inventions are classified in the same class. Therefore, there is a serious burden on the examiner in searching all the claimed inventions. The requirement is still deemed proper and is therefore made FINAL.

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Claims 1-120 and 152-155 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 6.

The restriction requirement (paper #5) inadvertently included claim 120 under group IV. A telephonic conversation with Ms. Thalia Warnament, Attorney of record, to clarify that claims

121-151 are included in Group IV and claims 86-120, 154 and 155 are include in Group III is attached to this office action.

Summary of the claims

2. Instant claims are directed to a composition for durable non-permanent shaping or durable retention of a non-permanent shape of at least one keratin fiber comprising at least one compound chosen from C3 to C5 monosaccharides, wherein the compound is present in an amount effective to impart a durable non-permanent shape to the keratin fiber or to durably retain the shape of the keratin fiber. However, instant claims recite the intended use "for durable non-permanent shaping of hair", which does not carry patentable weight. Accordingly, instant claims are treated as compositions comprising C3 to C5 monosaccharides.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 151 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for heat activating the hair or keratin fibers, does not reasonably provide enablement for a heat-activated composition. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Instant specification states that one of the embodiments of the instant invention is heat-activated composition (page4, lines 20-21 and page 5, lines 16-17). With respect to "heat activated" composition, application describes a composition, which shapes at least one keratinous fiber better than the same composition, which is not heated **during or after application of the composition** (page 7, lines 17-21). However, instant specification does not provide any guidance or description as to heating the composition at elevated temperatures, **during or after the application of the composition**. Instead, the only method of heat activating described on page 7, lines 6-16 is, the use of elevated temperatures (above 100 degrees C) provided either by directly contacting one keratinous hair fiber with a heat source i.e., heat styling by flat ironing methods, curling, or indirectly providing a heat source i.e., blow dryers, hood dryers, heating caps or steamers. Furthermore, on page 19 (lines 11-21), the example for treating and measuring the Curl Droop also teaches ironing hair (i.e., heat activating hair), but not heating the composition. Thus, applicants only described heat-activated hair. Applicants have not described or suggested any thing in the instant specification that enables one of an ordinary skill in the art to "heat or heat-activate" the composition, what range of temperatures used to heat or the duration of heat activating etc. Absent any guidance as to how to heat-activate the composition, one of an ordinary skill in the art would have to perform undue experimentation prepare a heat-activated composition, as claimed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 121 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Instant claim 121 recites "durable non-permanent shaping", which is indefinite because it is unclear as to how the shaping of the hair could be durable and at the same time non-permanent. Durable shaping requires the hair shape to be retained for a long time, whereas non-permanent shaping indicates that the shaping is retained for a long time. Thus, the two terms are contradictory to each other. However, for the purposes of prosecution, the claim is interpreted as a composition comprising C3 to C5 monosaccharides because the limitation "durable non-permanent shaping" is recited as an intended use.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 121, 135, 137, 138, 140, 141 and 148-150 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,660,838 to Koga et al (Hereafter Koga, submitted on PTO-1449).

Koga discloses external use preparations comprising xylobiose, in amount of 0.0001 to 20%, preferably 0.1 to 10%. Example 7 (col. 10) of Koga is specifically directed to a hair shampoo, with 8.9% xylobiose. Koga discloses the composition in the form of a cream, lotion, ointment etc (col. 10, claim 3) and also discloses addition of cosmetic additives such as

polyethylene glycol monostearate (example 7 and col. 2-3), which reads on the claimed additive (claim 150).

Koga fails to disclose the intended use of the instant claims. However, as explained above recitation of intended use of a composition carries no patentable weight. Further, Koga discloses the claimed amounts of xylobiose in the hair compositions and accordingly the ability to impart the claimed effect is inherent to Koga. Therefore, Koga anticipates the instant claims.

6. Claims 121, 130, 131, 133 and 140-150 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,514,367 to Lentini et al (Hereafter Lentini).

Lentini discloses skin cosmetic compositions comprising dihydroxyacetone (DHA) as an active component and cyclodextrin, in the form of creams, lotions, gels etc (abstract, col. 3, lines 46-62). Lentini discloses that the most preferred amount DHA is range of 5 to 10 percent (col. 4, lines 28-36). Further, example 1, Lentini discloses 5%DHA, which is within the claimed amount. Further, Lentini discloses the claimed amounts of DHA and accordingly the ability to impart the claimed effect is inherent to Lentini. Lentini also discloses addition of various cosmetic additives such as penetration enhancers, sugars, emulsifiers (lines bridging col. 3-4). Further, Lentini also other sugars such as sucrose, fructose, glucose (examples 1-4), which read on the instant claims 142-147.

Lentini fails to disclose the intended use of the instant claims. However, as explained above recitation of intended use of a composition carries no patentable weight. Therefore, Lentini anticipates the instant claims.

7. Claims 121-124, 135, 139-141 and 148-150 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 99/24009 (WO '009).

WO '009 discloses a hair composition comprising xylose and its fatty acid esters. The latter read on the derivatives of instant claim 139 (abstract). Example 6 of WO '009 discloses 0.3 g of xylose, which is within the claimed percentage in a mascara composition, which also contains pigments and other excipients.

WO '009 fails to disclose the intended use of the instant claims. However, as explained above recitation of intended use of a composition carries no patentable weight. Therefore, WO '009 anticipates the instant claims. Further, WO '009 discloses the claimed amounts of xylose and accordingly the ability to impart the claimed effect is inherent to WO '009.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 121-135, 140, 141, 149 and150 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pub. No. US 2002/0031483 A1 to Beck et al (hereafter collectively Beck).

Beck teaches a hair treatment composition comprising a compound chosen from a TCA cycle intermediate, a carbohydrate, a sugar, a fatty acid product or a glycolysis product. Appropriate sugars include trioses such as glyceraldehydes (aldose), and dihydroxyacetone

(ketose), tetroses such as erythrose, threose, and erythrulose, pentoses such as ribose, arabinose, xylose, lyxose, ribulose and ribulose phosphate and xylulose, which read on instant claims 121-135. Further, beck teaches Furanoses, pyranoses, phosphate derivatives of sugars (page 1, paragraph 0015). Beck also teaches that the composition preferably contains 0.01% to 0.5% of the useful compounds (page 1, paragraph 0018), which falls within the claimed range of 0.01% to 10%. Beck teaches the compositions in the form of a shampoo or used in a conditioner composition, which read on the instant dispersion or emulsion (page 1, paragraph 0020). Further, Beck suggests addition of suitable surfactants, polymers, conditioning agents, adjunct materials and water to the compositions (pages 2 and 3, and examples 4-9 on page 5).

Beck teaches that the composition is used for hair treatment, in particular for oxygen consumption of hair follicle and thus stimulating the hair growth. Beck does not teach instant durable non-permanent shaping of hair. However, as explained the recitation of intended use does not carry patentable weight in composition claims. Further, amount of compounds taught by Beck is within the claimed range of monosaccharides. Accordingly, it would have been obvious of one of an ordinary skill in the art at the time of the instant invention to use any of the monosaccharides i.e., trioses, tetroses etc., in the hair treatment composition in the range of 0.01 to 0.5% with an expectation to stimulate the growth of hair follicle because beck suggests that the sugars provide the required oxygen supply for the growth of hair follicle.

While Beck does not recognize the claimed effect, Beck teaches sugars in the same amounts as claimed. Accordingly, absent showing evidence to the contrary, the hair compositions containing 0.01% to 0.5% of sugars such as trioses or tetroses possess the ability to impart the claimed durable non-permanent shaping of hair fibers.

9. Claim 151 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,660,838 to Koga et al (Koga).

Koga teaches external use preparations containing xylobiose, in amount of 0.0001 to 20%, preferably 0.1 to 10% (also refer to102 (b) rejection above). Example 7 (col. 10) of Koga is specifically directed to a hair shampoo, with 8.9% xylobiose. Koga teaches the composition in the form of a cream, lotion, ointment etc (col. 10, claim 3). Further, Koga suggests using the composition in the form of hair care products such as hair-treatments, rinses, shampoos and conditioners (col. 2, lines 20-26).

Koga fails to teach the claimed "heat-activated" composition. Please refer to the rejection (item # 3) under 35 USC 112, 1st paragraph. However, Koga suggests using the composition for hair treatments. Although Koga does not specifically suggest treating hair with hair driers or blowers or steamers as described in the instant specification, the "hair treatments" of Koga include all known methods of hair styling, coloring, and shaping, with and without heat activation of hair. Accordingly, it would have been obvious for one of an ordinary skill in the art at the time of the instant invention to apply the xylobiose-containing composition of Koga, during the process of hair treatment (with or without heat activation) because Koga suggests that the compostions impart stability, retain moisture, impart luster and impart natural oiliness to the hair. The expected result would be to impart natural oiliness, moisture and shine of hair.

10. Claim 121,135 and 136 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 08217656 (hereafter JP '656, submitted on PTO-1449).

JP teaches cosmetic compositions containing sugar-bound polyaminoacids such as polyornithine, polylysine etc., and the sugars being xylose, arabinose, glucose, fructose etc. JP '656 teaches the compostions for hair conditioning and moisture holding. The sugars xylose and arabinose of JP '656 read on the pentoses monosaccharides of the instant claims. Further, the polyaminoacids bound sugar reads on the derivatives of sugars. Accordingly, it would have been obvious for one of an ordinary skill in the art at the time of the instant invention to choose a xylose or arabinose sugar to which is attached a derivative such as polylysine or polyglutamic acid in a hair composition because JP '656 teaches that the sugar-bound polyamino acids are useful for hair conditioning. One of an ordinary skill in the art would have expected equal hair conditioning and moisture holding with the different polyamino acid bound sugars of JP '656, including monosaccharides such as xylose, arabinose.

is anticipated by the copending claims.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 121-151 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-29 of copending Application No. 09/614,118. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are anticipated by the copending claims. Instant claims are drawn to a composition containing C3 to C5 monosaccharides, whereas copending claims are drawn to method of protecting hair using a composition containing C3 to C5 monosaccharides. The monosaccharides and their amounts claimed in the copending application are same as that of the instant. Instant claims recite the intended use of the composition, "for durable non-permanent shaping of hair". While copending claims do not recite the intended use of the instant claims, the composition being the same in both sets of claims, the instant intended effect is inherent to the composition of the copending claims. Accordingly, the instant composition is anticipated by the copending claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claims 121-151 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-199 of copending Application No. 09/820,812. Although the conflicting claims are not identical, they are not

patentably distinct from each other because the instant claims are anticipated by the copending claims. Instant claims are drawn to a composition containing C3 to C5 monosaccharides, and claim 139 specifically states substituted monosaccharides. Copending claims are drawn to a composition containing C1 to C22 substituted C3 to C5 monosaccharides, and method of protecting hair using the same. The monosaccharides and their amounts claimed in the copending application are same as that of the instant. Instant claims recite the intended use of the composition, "for durable non-permanent shaping of hair". While copending claims do not recite the intended use of the instant claims, the composition being the same in both sets of claims, the instant intended effect is inherent to the composition of the copending claims. Accordingly, the instant composition is anticipated by the copending claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S Channavajjala whose telephone number is 703-308-2438. The examiner can normally be reached on 7.30 AM -4.00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K Page can be reached on 703-308-2927. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7924 for regular communications and 703-308-7924 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

Lakshmi S Channavajjala
Examiner
Art Unit 1615

August 12, 2002